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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,801	11/29/2001	Yoshihisa Fujiwara	011612	9176

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EXAMINER

THANH, QUANG D

ART UNIT	PAPER NUMBER
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3764

DATE MAILED: 05/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/995,801

Applicant(s)

FUJIWARA ET AL.

Examiner

Quang D. Thanh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03/08/2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-26 is/are pending in the application.
- 4a) Of the above claim(s) 19-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-18 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 9 is objected to, as being of improper dependent form because it depends on a cancelled claim 2. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 10-11 and 17-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Inbe et al. (5,993,401).
3. Re claims 10-11, and 17-18, Inbe discloses a massage machine 1 (fig. 1) comprising (claim 10) a living body information sensor (heart beat sensor 11) for detecting the living body information of a user's autonomic nervous system, a control circuit 30 for controlling a massage operation based on the living body information detected by the sensor, the control circuit comprising psychological state estimating means 10/45 for estimating the psychological state based on the living body information

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detected by the sensor by executing a preliminary massage (col. 3, lines 65 to col. 4, line 5) and massage operation adjusting means 20 (fig. 2 and 8); (claim 11) a memory means 42/43/45 for storing the result of estimation of the psychological state, and the massage operation is adjusted based on the result of estimation of the psychological state (col. 6, lines 25-59); (claim 17) the massage operation adjusting means 20 comprising mode changes over means 40 (col. 6, lines 7-24) for switching between a relaxation mode (deep relax level H as shown in fig. 9) and a refreshment mode (light level L, fig. 9) and adjust different massages in the different modes (by adjusting the massage speed); (claim 18) the control circuit gives different kinds of massages to a plurality part of the person (col. 8, lines 25-30) and adjust the massage movement (by varying different massage speeds/intensity and time durations) for each kind of the massage to be given to each part in accordance to the result of estimation of the psychological state (col. 4, lines 28-60).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3-5, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mrklas et al. (5,304,112) in view of Ulrich (6,024,575).

6. Re claim 1, Mrklas discloses a massage machine 55 (fig. 1) comprising a living body information sensor (biological sensors, col. 14, lines 13-19) for detecting the living body information of a user's autonomic nervous system, a control circuit 23 for controlling a massage operation 9 based on the living body information detected by the sensor, the control circuit comprising psychological state estimating means 15 for estimating the psychological state based on the living body information detected by the sensor, and massage movement adjusting means SRS Computer 23 and control module 27 (fig. 1B). Mrklas also discloses that the SRS Computer 23 is programmed to increasingly induce deeper states of relaxation as the session progresses (col. 21, lines 12-14) and near the end of the session may again initiate the massage mechanism to awaken the subject from his relaxed state and into normal wakefulness, and the SRS Computer 23 may of course be programmed to follow other massage sequences during a session depending on the objectives of the session (col. 6, lines 58-68). This inherently teaches that the SRS Computer 23 is programmable by a program as a mode changeover means for switching between a relaxation mode (relaxed state) and a refreshment mode (normal wakefulness). However, Mrklas does not explicitly disclose the massage movement is adjusted so as to reduce the activity of the autonomic nervous system in the relaxation mode and to increase the activity of the autonomic nervous system in the refreshment mode. Nevertheless, Ulrich teaches a vibrating biofeedback device that can either help the user to relax and reduce the stress through vibrations or to awaken the user in situations where continued alertness is necessary (col. 4, lines 2-8). This device has a microprocessor that can be programmed to cause

vibrations in inverse relationship to the degree of stress experienced, thereby would adjust the vibration to decrease the activity of the autonomic nervous system in order to relax the user and increase the activity of the autonomic nervous system in order to prevent a user from dozing off (col. 4, lines 13-20). Since Mrklas already teaches that high activity level of the autonomic nervous system is associated with high level of stress (col. 14, lines 18-21), therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to operate Mrklas' device, such that it would adjust the vibration in inverse relationship to the degree of stress experienced, as suggested by Ulrich, for the purpose of decreasing the activity of the autonomic nervous system in order to help the user to relax and reduce the stress through vibrations or increasing the activity of the autonomic nervous system in order to awaken the user in situations where continued alertness is necessary (col. 4, lines 2-8).

7. Re claims 3-5 and 7, Mrklas also discloses one or more sensors selected from among galvanic skin resistance, pulse rate (heart rate) with higher heart rates being associated with higher levels of stress or tense state and lower heart rates being associated with lower levels of stress or relaxed state (col. 14, lines 13-19).

8. Claims 1, and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inbe et al. in view of Ulrich (6,024,575).

9. Re claim 1, Inbe discloses a massage machine (fig. 1) comprising a living body information sensor (heart beat sensor 11) for detecting the living body information of a user's autonomic nervous system, a control circuit 30 for controlling a massage

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operation based on the living body information detected by the sensor, the control circuit comprising psychological state estimating means 10/45 for estimating the psychological state based on the living body information detected by the sensor, and massage movement adjusting means 20 (fig. 2 and 8) comprising mode changes over means 40 (col. 6, lines 7-24) for switching between a relaxation mode (deep relax level H as shown in fig. 9) and a refreshment mode (light level L, fig. 9). Inbe although discloses the massage movement is adjusted to lower the activity of the autonomic nervous system in the relaxation mode (col. 7, line 22 to col. 8, line 29), it does not explicitly disclose the massage movement is adjusted so as to increase the activity of the autonomic nervous system in the refreshment mode. However, Ulrich teaches a vibrating biofeedback device that can either help the user to relax and reduce the stress through vibrations or to awaken the user in situations where continued alertness is necessary (col. 4, lines 2-8). This device has a microprocessor that can be programmed to cause vibrations in inverse relationship to the degree of stress experienced, and since the degree of stress is known to be directly associated with the activity of the autonomic nervous system, therefore the microprocessor would adjust the vibration to decrease the activity of the autonomic nervous system in order to relax the user and increase the activity of the autonomic nervous system in order to prevent a user from dozing off (col. 4, lines 13-20). Since Inbe already teaches that the change rate of the heartbeat (activity of the autonomic nervous system) is associated with the relax level (level of stress) (col. 7, lines 22-35), therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to operate Inbe's

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device, such that it would adjust the vibration in inverse relationship to the degree of stress experienced, as suggested by Ulrich, for the purpose of decreasing the activity of the autonomic nervous system in order to help the user to relax and reduce the stress through vibrations or increasing the activity of the autonomic nervous system in order to awaken the user in situations where continued alertness is necessary (col. 4, lines 2-8).

10. Re claim 8, Inbe discloses the control circuit gives different kinds of massages to a plurality part of the person (col. 8, lines 25-30) and adjust the massage movement (by varying different massage speeds/intensity and time durations) for each kind of the massage to be given to each part in accordance to the result of estimation of the psychological state (col. 4, lines 28-60).

11. Re claim 9, Inbe further discloses that the massage operation is executed by a sequence of massage movements (S1-S5, fig. 3, col. 4, lines 5-64), and the massage movement adjusting means comprises time adjusting means (to set time period necessary for inducing the user to the relax state, col. 4, lines 5-64) for adjusting the time required for a predetermined number of massages movements so as to complete the sequence of massages movements within the approximately the same period of time.

12. Claims 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inbe/Ulrich, and further in view of Coggins (5,792,047). Inbe/Ulrich discloses a massage machine having all the features including heart rate sensors, except for sensors measuring pulse rate, galvanic skin response or skin temperature. However,

Coggins teaches a physiological parameter monitoring apparatus having physiological sensors 16 that can be used to measure pulse rate, galvanic skin response or skin temperature (col. 5, lines 19-25). An increase in the measurement would inherently indicate a stressed or tense state and a decrease in the measurement would inherently indicate a relax state. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Inbe/Ulrich's device, to include one or more physiological sensors that can be used to measure pulse rate, galvanic skin response or skin temperature, as suggested by Coggins, since these sensors are well known equivalent means for measuring physiological responses in the medical art (col. 5, lines 18-25).

13. Claims 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inbe et al. in view of Coggins (5,792,047). Inbe discloses a massage machine having all the features including heart rate sensors, except for sensors measuring pulse rate, galvanic skin response or skin temperature. However, Coggins teaches a physiological parameter monitoring apparatus having physiological sensors 16 that can be used to measure pulse rate, galvanic skin response or skin temperature (col. 5, lines 19-25). An increase in the measurement would inherently indicate a stressed or tense state and a decrease in the measurement would inherently indicate a relax state. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Inbe's device, to include one or more physiological sensors that can be used to measure pulse rate, galvanic skin response or skin temperature, as

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suggested by Coggins, since these sensors are well known equivalent means for measuring physiological responses in the medical art (col. 5, lines 18-25).

Response to Arguments

14. Applicant's arguments filed 03/08/2004 have been fully considered but they are not persuasive.

15. In response to applicant's argument that "the SRS computer 23 (in fig. 1A) does not control the Physical Support and Massage system 9, which is instead controlled directly by the Operator Control Module 27," applicant's attention is directed to Mrklas' fig. 1B and col. 4, lines 56-60, which clearly show that the physical support and massage system 9 can be controlled by the SRS computer 23. Regarding applicant's argument that "there is no control means in Mrklas. et al. which detects the stress level and controls the massage action based on the detected stress level, as in the present invention", it is unclear how the applicant can disregard Mrklas' teaching in fig. 1B that clearly shows the SRS computer 23 receiving input from stress state detection module 15 and sending output signal to the physical support and massage system 9.

16. In response to applicant's argument that "none of the cited references recognizes or identifies that the distinction between the relaxation mode and the refreshment mode is based on the lowering or raising of the activity of the autonomic nervous system", the examiner respectfully disagrees. Mrklas discloses that the SRS Computer 23 is programmed to increasingly induce deeper states of relaxation as the session progresses (col. 21, lines 12-14) and near the end of the session may again initiate the massage mechanism to awaken the subject from his relaxed state

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(relaxation mode) and into normal wakefulness (refreshment mode) and that high activity level of the autonomic nervous system is associated with high level of stress and vice versa (col. 14, lines 18-21). Inbe also teaches that the change rate of the heartbeat (activity of the autonomic nervous system) is associated with the relax level (level of stress) (col. 7, lines 22-35) and a massage movement adjusting means 20 (fig. 2 and 8) having a mode changes over means 40 (col. 6, lines 7-24) for switching between a relaxation mode (deep relax level H as shown in fig. 9) and a refreshment mode (light level L, fig. 9) by varying the speed and the massage intensity of the vibration.

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang D. Thanh whose telephone number is (703) 605-4354. The examiner can normally be reached on Monday-Thursday & alternate Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Lucchesi can be reached on (703) 308-2698. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for regular and After-Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Quang D. Thanh
Patent Examiner
Art Unit 3764
May 17, 2004



Danton D. DeMille
Primary Examiner